DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with atty. Christin Montfort on 08-07-2009. **Claims 18 and 19 are presently cancelled as indicated below.**

The application has been amended as follows:

1. (Presently Amended) A game system including a game machine and an input device, under which a player plays a game having a rally state using said input device, wherein during the rally state,

said input device comprises an acceleration sensor for generating an acceleration correlation signal when said player actually swings said input device in a real space, and a transmission unit for transmitting said generated acceleration correlation signal to said game machine; and

said game machine displays a ball on a monitor screen through execution of a game program in which a CPU player character controlled by a computer program plays against a player character controlled by said player, and further comprises:

a first calculation unit for calculating a predicted return position of said ball returned by said CPU player character;

a judgment unit for judging whether a current position of said player character is in a ball strikable range by comparing said predicted return position and the current position of said player character;

a ball striking position movement unit for automatically moving a ball striking position of said player character to be approximated to said predicted return position in which said judgment unit judges that the current position is out of the ball strikable range, wherein the ball striking position of said player character remains at the current position if the current position is within the ball strikable range, and is always moved to be approximated to said predicted return position when the current position is out of the ball strikable range without inactivating said player character to allow said player to continue participating the game;

a swing detection unit for detecting whether said input device has been actually swung or not; and

a second calculation unit for calculating an initial speed vector of said ball after received when said swing detection unit has detected a swing in which the position of said ball exists in a ball receivable range that is three-dimensionally defined, from a position of said ball and acceleration of said input device according to said acceleration Correlation signal, wherein the initial speed vector is calculated based on coordinates of said ball on the screen and a magnitude of

a swing of said input device.

6. (Presently Amended) A game system including a game machine and two or more input devices, under which two or more players play a game having a rally state using said input devices, wherein during the rally state,

said input devices each comprise an acceleration sensor for generating an acceleration correlation signal when one of said players actually swings said input device in a real space, and a transmission unit for transmitting said generated acceleration correlation signal to said game machine;

said game machine runs a game program in which said two or more players play the game and displays said ball on a monitor screen, and further comprises:

a first calculation unit for calculating a predicted return position of a ball returned by an opposite player character controlled by one of said players;

a judgment unit for judging whether a ball striking player character controlled by another of said players is in a ball strikable range by comparing said predicted return position and a current position of said ball striking player character;

a ball striking position movement unit for automatically moving a ball striking position for said ball striking player character to be approximated to said predicted return position when said judgment unit judges that the current position is out of the ball strikable range, wherein the ball striking position of said ball striking player character remains at the current position if the current position is

within the ball strikable range, and is always moved to be approximated to said predicted return position when the current position is out of the ball strikable range without inactivating said ball striking player character to allow said two or more players to continue participating the game;

a swing detection unit for detecting whether said input device has been actually swung or not; and

a second calculation unit for calculating an initial speed vector of said ball after received when said swing detection unit has detected a swing in which the position of said ball exists in a ball receivable range that is three-dimensionally defined, from a position of said ball and acceleration of said input device according to said acceleration correlation signal.

10. (Presently Amended) A method for controlling a game having a rally state displayed on a game machine and played by a player using an input device, the gaming machine comprising a processor and the input device, during the rally state, the method comprising:

generating an acceleration correlation signal when said player actually swings said input device in a real space;

transmitting said generated acceleration correlation signal to said game machine;

displaying, by the game machine, a ball on a monitor screen through execution via the processor of a game program in which a CPU player character

controlled by a computer program plays against a player character controlled by said player:

calculating, via the processor, a predicted return position of said ball returned by said CPU player character;

judging via the processor, whether a current position of said player character is in a ball strikable range by comparing said predicted return position and the current position of said player character;

automatically moving, via the processor, a ball striking position of said player character to be approximated to said predicted return position in which said judgment unit judges that the current position is out of the ball strikable range, wherein the ball striking position of said player character remains at the current position if the current position is within the ball strikable range, and. is always moved to be approximated to said predicted return position when the current position is out of the ball strikable range without inactivating said player character to allow said player to continue participating the game;

detecting, via the processor, whether said input device has been actually swung or not; and

calculating, via the processor, an initial speed vector of said ball after received when a swing is detected in which the position of said ball exists in a ball receivable range that is three-dimensionally defined, from a position of said ball and acceleration of said input device according to said acceleration correlation signal, wherein the initial speed vector is calculated based on coordinates of said ball on the screen and a magnitude of a swing of said input

device.

14. (Presently Amended) A method for controlling a game having a rally state displayed on a game machine played by two or more players using two or more input devices, the game machine comprising a processor and the two or more input devices, during the rally state, the method comprising:

generating acceleration correlation signals when the two or more players actually swing said two or more input devices in a real space;

transmitting said generated acceleration correlation signals to said game machine, wherein said game machine runs a game program in which said two or more players play the game and displays a ball on a monitor screen;

calculating, via the processor, a predicted return position of a ball returned by an opposite player character controlled by one of said players;

judging, via the processor, whether a ball striking player character controlled by another of said players is in a ball strikable range by comparing said predicted return position and a current position of said ball striking player character;

automatically moving, via the processor, a ball striking position for said ball striking player character to be approximated to said predicted return position when said judgment unit judges that the current position is out of the ball strikable range, wherein the ball striking position of said ball striking player character remains at the current position if the current position is within the ball strikable range, and is always moved to be approximated to said predicted return

position when the current position is out of the ball strikable range without inactivating said ball striking player character to allow said two or more players to continue participating the game;

detecting, via the processor, whether said two or more input devices have been actually swung or not; and

calculating, via the processor, an initial speed vector of said ball after received When a swing is detected in which the position of said ball exists in a ball receivable range that is three-dimensionally defined, from a position of said ball and acceleration of said input device according to said acceleration correlation signal.

18. (Presently Cancelled)

19. (Presently Cancelled)

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: The main advantage of the claims as presently amended is that they always move the nearest player to the anticipated landing point of the ball, which makes the game easier to play. Claim 1 cites in part: "a ball striking position movement unit for automatically moving a ball striking position to said predicted return position in which said judgment unit judges that the current position is out of the ball strikable ranger, wherein the ball striking position of said player remains at the

current position if the current position is within the ball strikable range, and is always moved to be approximated to said predicted return position when the current position is out of the ball strikable range without inactivating said player to allow said player to continue participating in the game." The other independent claims have similar citations and are of similar scope. This is in contrast to Fig. 13 of Togami ('897) in which if the ball is out of the successful receiving distance, and error is displayed when the ball lands. Togami thus does not always move the player character to intercept the ball. The applicant's claims thus make the game easier to play than the closest prior art, which would be advantageous to players attempting to learn how to play the game. Another advantage of the claims as presently cited is that the ball interception is done with an input device that simulates an actual swingable sports implement (a tennis racket in the applicant's main embodiment). The video game input device with an accelerometer to simulate swinging an actual sports implement will serve to make the game more realistic and intuitive to use, instead of using typical video game controls, such as those disclosed by Togami (Fig. 1, C1, C2, C1a-c, C2a-c, 8:42-9:10). These typical video game controls are more complex to use than the claimed swingable input device. The features of the claimed invention are all geared towards simplification of the input required by the player of the game. The claimed vector of the virtual ball "hit" by the swingable input device is determined by the three-dimensional locations of the ball in virtual space and the actual speed with which the input device is swung. Since the video game is most likely played in an indoor environment, this would eliminate the need for the

player to walk or run to another area of the room to intercept the ball; the actual location of the player relative to the screen thus does not have to have a physical correspondence to the virtual position of the player's character in virtual space on the virtual court—while such a game could be designed, it would run counter to the other claim limitations' advantages of making game play simple. The player can play the game stationary except for swinging the input device. Whether or not the player hits the ball is thus depend on "whether said input device has actually been swung or not" making game play for the player as simple as possible. The examiner respects that the applicant may have different reasons for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rimoto, et al. in U.S. patent 6,478,678 B1 teach a three-dimensional trajectory for a ball. Rimoto, et al. in U.S. patent 6,503,144 B1 teach selecting a player to field a ball. Brosnan, et al. in U.S. pre-grant publication 2004/0002380 A1 teach trajectories. Takemoto, et al. in U.S. patent 7,252,588 B2 teach proximities for ball interception. Hirai, et al. in U.S. patent 6,398,647 B1 teach ball interception. Mifune, et al. in U.S. patent 7,199,794 B2 teach ball

interception. Matsuyama, et al. in U.S. patent 6,767,282 B2 teach a video game tennis racket with accelerometers. Namba, et al. in U.S. patent 6,494,783 B2 teach determining if a pitched baseball is in a batter's strike zone.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Hoel whose telephone number is (571) 272-5961. The examiner can normally be reached on Mon. to Fri., 8:00 A.M. to 4:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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